



B. Sc. Physics

Vision

To ignite the young minds to achieve excellence in physics through whole person education, to provide opportunities to explore the laws of nature and enable them to contribute to nation building.

Mission

- Impart quality education, endorse scientific temper and create a passion for Physics through competitive curriculum and effective teaching.
- Explore the skills through hands on experiences by providing state of art research facilities.
- Strive for holistic development by imbining ethical and social values and build scientific, communicative and leadership competencies to face the global challenges.

Programme Outcomes

1. Demonstrate comprehensive knowledge of basic concepts, fundamental laws, principles and Conceptualize theories related to Physical phenomena and their applications in day to day life.
2. Critically analyze physical science problems and develop appropriate methods to obtain precise solutions using latest techniques and models.
3. Exhibit scientific and research outlook to analyze and develop creative solutions for socially and environmentally pressing problems.
4. Exhibit practical ability to handle scientific instruments and tools with skill and ease, acquire systematic data, analyze and interpret the results using mathematical and ICT tools.
5. Analytically solve problems, evaluate the results rationally and arrive at objective conclusions.
6. Exhibit intra and inter-personal skills including oral and written skills with scientific approach as an individual and with a team spirit working in core or multidisciplinary environment.
7. Demonstrate self - directed and lifelong learning and contribute to diverse teams through scientific, constructive, innovative and collaborative skills.
8. Practice ethical, professional, environmental and social values in personal and social life and would contribute to build a cultured and civilized society.
9. Recognize the potential impact of local and global issues including energy crisis and Sustainance and involve in constructive community service.

Programme Specific Outcomes

1. Comprehend the physical principles and relate the theory and applications in core domains such as Properties of matter, Mechanics, Optics, Thermodynamics, Electricity and magnetism, Atomic and Molecular, Nuclear, Solid state Physics and Electronics.
2. Determine the physical properties of materials, analyze and interpret the data using mathematical and computational techniques.
3. Evaluate mechanical, electrical and electronic systems and exhibit practical skills in solving real time problems
4. Relate theory and applications, harness new ideas related to physics and allied sectors and contribute to multidisciplinary and interdisciplinary domains.



M. Sc. Physics

Vision

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Programme Outcomes

1. Cognize and exhibit advanced knowledge in core and applied areas and realize the irrelevance in modern science and technology.
2. Critically and intellectually analyse and solve complex scientific and real time problems and arrive at logical conclusions.
3. Exhibit research oriented inquisitive, novel ideas by utilizing appropriate modern tools and techniques to cater to the needs.
4. Demonstrate skill in performing advanced physics experiments and projects using laboratory facilities and instrumentation techniques, by logical planning and systematic execution.
5. Utilize appropriate experiments, interfacing techniques, mathematical modelling methods and computational tools.
6. Acquire data, analyse and communicate technical and scientific findings effectively to the global community.
7. Demonstrate independent and lifelong learning, endowed with leadership skills and carry out research collaborating with related fields of Physics.
8. Practice individual consciousness and exhibit professional and ethical values in personal, social and scientific research.
9. Provide solutions with social concern to the problems on energy demands, environment, health and safety issues for the well-being of the society

Programme Specific Outcomes

1. Comprehend the physical concepts, theory, and applications in advanced core Physics domains such as Mathematical Physics, Classical, Quantum and Statistical Physics, Atomic and Molecular Physics, Nuclear Physics, Solid-state Physics and Electronics
2. Utilize scientific knowledge and apply numerical techniques for modeling physical systems for which analytical methods are in appropriate or of limited utility.
3. Recognize the limitations of physical system based on empirical study, minimize contributing variables, collect data, analyze and interpret the results.
4. Integrate mathematical, physical and computational techniques to address the problems and identify the applications of physics in new interdisciplinary areas.